

What Is Claimed Is:

1. An ignition coil (10) for a gasoline engine including a coil core (12) on which at least one winding layer (14.1, 14.2) of a primary winding (14) is wound up, on which in turn at least one winding layer (16.1 through 16.6) of a secondary winding (16) is wound up,
wherein at least one winding layer (14.3) of a shield winding (18) is situated between the at least one winding layer (14.1, 14.2) of the primary winding (14) and the at least one winding layer (16.1 through 16.6) of the secondary winding (16).
2. The ignition coil as recited in Claim 1,
wherein the primary winding (14) has at least two winding layers, the top winding layer of the primary winding (14), facing the secondary winding (16), forming a winding layer (14.3) of the shield winding (18).
3. The ignition coil as recited in Claim 2 or 3,
wherein the secondary winding has at least two winding layers, the bottom winding layer of the secondary winding, facing the primary winding, forming a winding layer of the shield winding.
4. An ignition coil for a gasoline engine including a coil core on which at least one winding layer of a secondary winding is wound up, on which in turn at least one winding layer of a primary winding is wound up,
wherein at least one winding layer of a shield winding is situated between the at least one winding layer of the secondary winding and the at least one winding layer of the primary winding.
5. The ignition coil as recited in Claim 4,
wherein the primary winding has at least two winding layers, the bottom winding layer of the primary winding, facing the secondary winding, forming a winding layer of the shield winding.
6. The ignition coil as recited in Claim 4 or 5,
wherein the secondary winding has at least two winding layers, the top winding layer of the secondary winding, facing the primary winding, forming a winding layer of the shield winding.

7. The ignition coil as recited in one of Claims 1 through 6,
wherein the shield winding (18) is connected to a ground potential (GND).
8. A method for manufacturing an ignition coil (10) for a gasoline engine including the following method steps:
 - winding up a first winding layer (14.1) of an electrically conducting, insulated wire on a coil core (12) in a first winding direction (A),
 - winding up at least one additional winding layer (14.2, 14.3) of the wire on the winding layer (14.1) underneath it in a winding direction (B) opposite the winding direction (A) of the winding layer (14.1) underneath it, characterized by
 - separating (separation point 19) of the wire at the start of the top winding layer (14.3) for forming two free wire ends (20, 21) of the top winding layer (14.3),
 - winding up of a separate coil winding (16), separated from the existing winding layers (14.1, 14.2, 14.3), with at least one winding layer (16.1).
9. A method for manufacturing an ignition coil for a gasoline engine including the following method steps:
 - winding up a first winding layer of an electrically conducting, insulated wire in a first winding direction on a separate coil winding with at least one winding layer, characterized by
 - winding up of at least one additional winding layer of the wire on the first winding layer in a second winding direction opposite the first winding direction,
 - separating of the wire at the start of the first winding layer for forming two free wire ends of the first winding layer.
10. The method as recited in Claim 8 or 9,
wherein one wire end (20) of the two free wire ends (20, 21) is connected to ground potential (GND).
11. The method as recited in one of Claims 8 through 10,
wherein, upon a change of the winding direction, the wire is secured in a holding device (24) during transition to a further winding layer.
12. The method as recited in Claim 11,
wherein the holding device (24) includes an insulation piercing connecting device.

13. The method as recited in Claim 11 or 12,
wherein one of the two free wire ends (20, 21) is fixed in the holding device (24) and
connected to the ground potential.